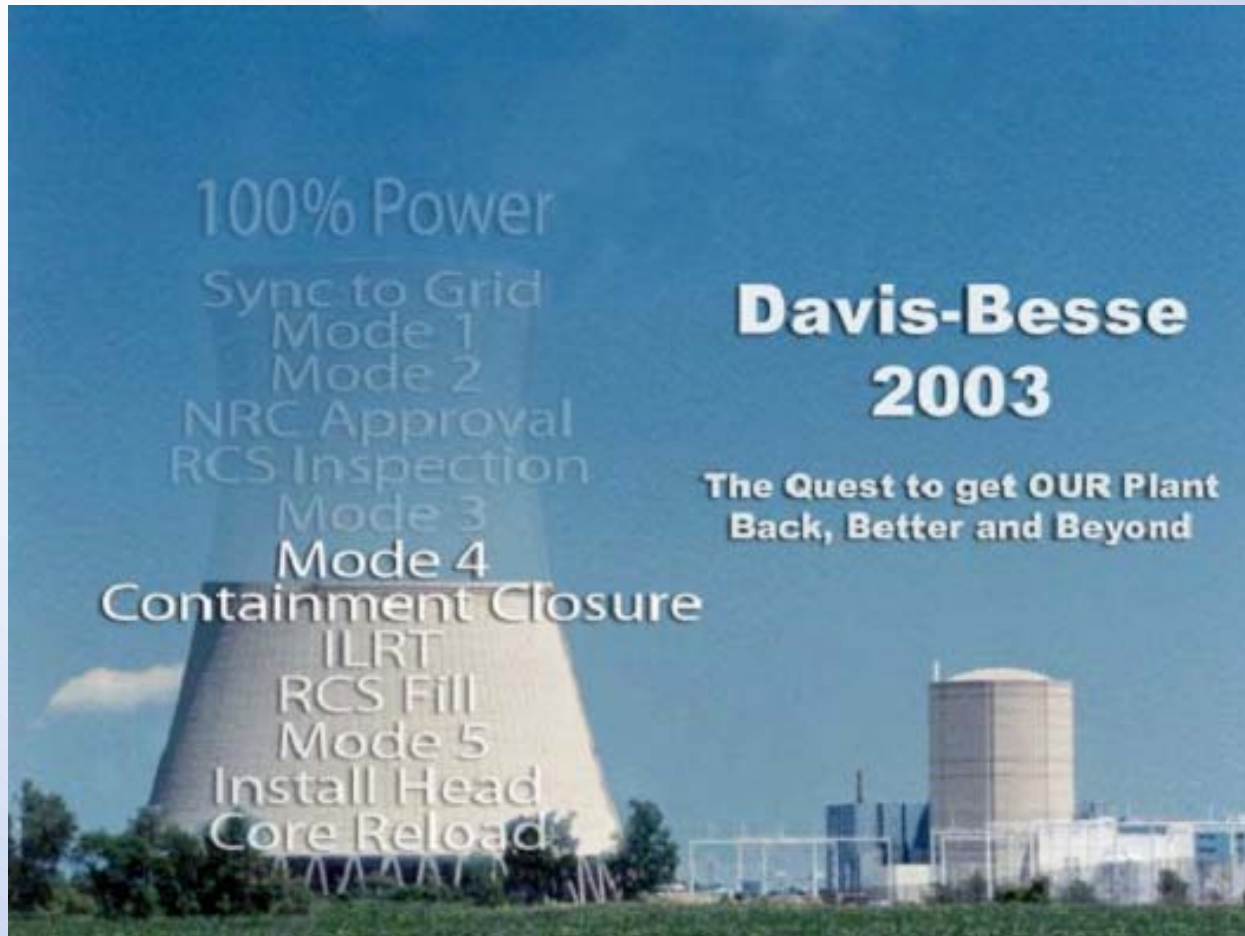


Davis-Besse Nuclear Power Station



IMC 0350 Meeting

Desired Outcome

- Provide an update on remaining Mode 4/3 activities and Operations readiness
- High Pressure Injection Pump Modification Update
- Discuss the quality of performance by Operations, Engineering, and Maintenance
- Provide information on numerous actions taken to regain and improve safety margin
- Status our milestones and remaining restart actions

Lew Myers
FENOC Chief Operating Officer

Meeting Agenda

- Containment Activities; Remaining Mode 4/3 Activities; Desired Outcomes - First Mode 4/3Mark Bezilla
- High Pressure Injection Pump Modification Update.....Bob Schrauder
- Operations PerformanceMike Roder
- Engineering PerformanceJim Powers
- Maintenance PerformanceMike Stevens
- Safety Margin Improvements.....Lew Myers
- Restart Milestones/Actions.....Clark Price

Containment Activities; Remaining Mode 4/3 Activities; Desired Outcomes - First Mode 4/3



Mark Bezilla
Vice President/Plant Manager

Desired Outcome

- Leave you with a better understanding on the following:
 - Containment Activities
 - Mode 4/3 Preparations
 - Mode 4/3 Desired Outcomes



Containment Activities

- Containment Health Actions
- Containment Work
- Containment Closure
- Containment Ownership

Containment Closure



**Closure of Containment
June 25, 2003**



- Activities completed included
 - Replacement of Reactor Pressure Vessel Head
 - Rework of Containment Sump
 - Containment Dome Painting
 - Installation of FLÜS Online Leak Monitoring System
 - Replacement of Containment Air Coolers
 - Rework of Decay Heat Tank
 - Thorough Cleaning and Inspection of Containment Building

Containment Ownership



Replacement of Reactor Pressure Vessel Head

Containment Ownership



Rework of Containment Sump

Containment Ownership



Containment Dome Painting

10

Containment Ownership



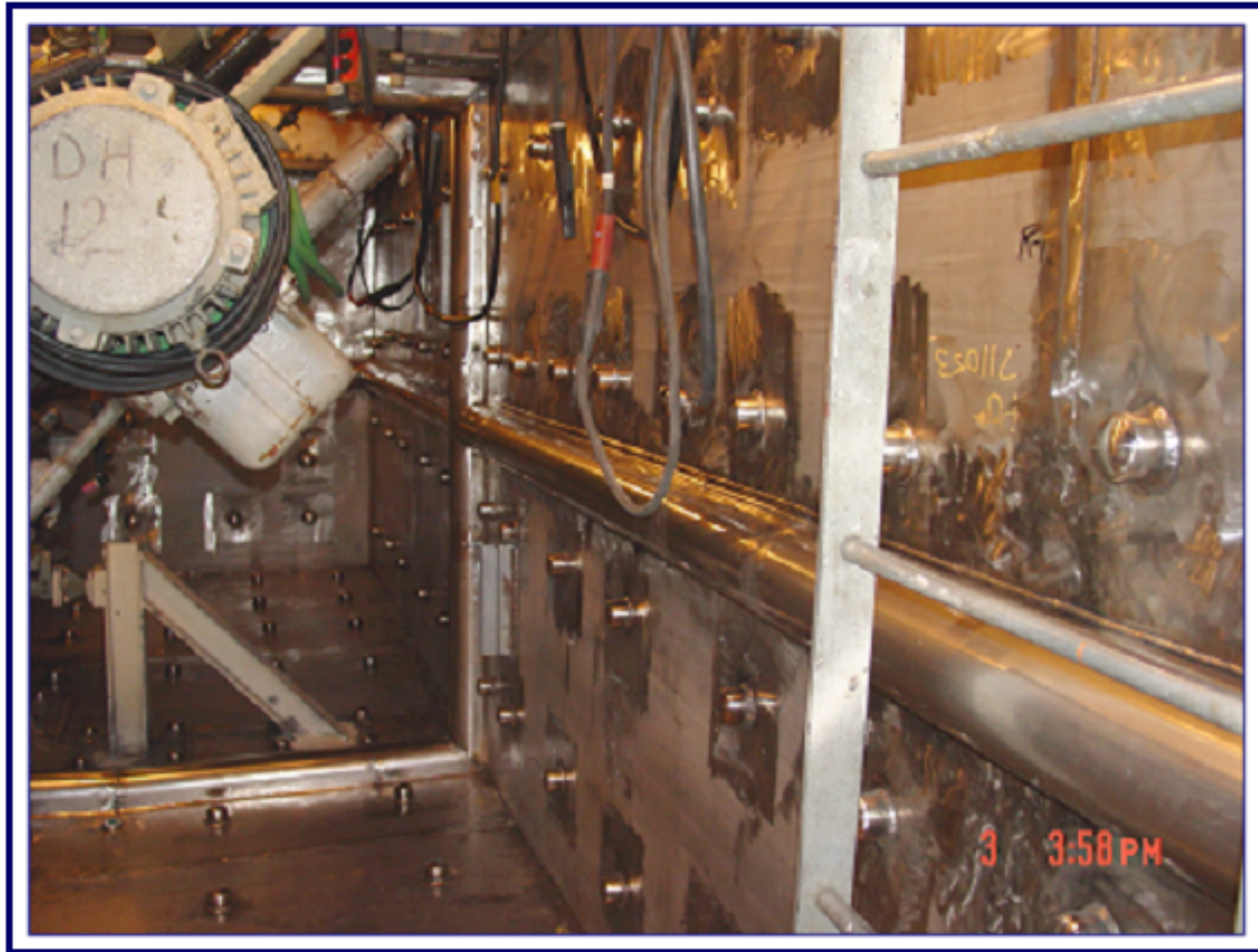
Installation of FLÜS Online Leak Monitoring System

Containment Ownership



Replacement of Containment Air Coolers

Containment Ownership



Rework of Decay Heat Tank

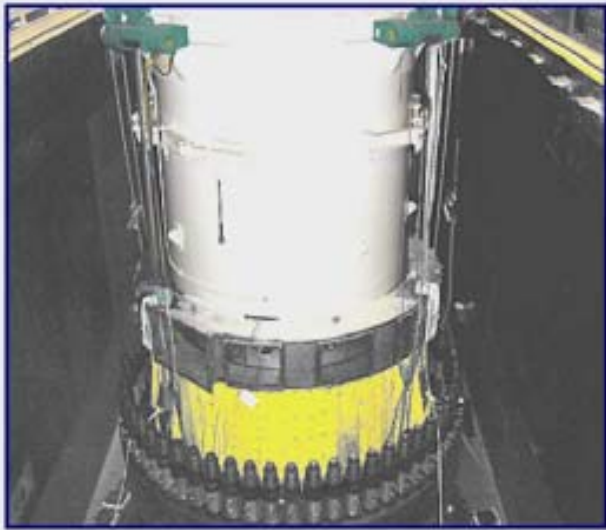
Containment Ownership



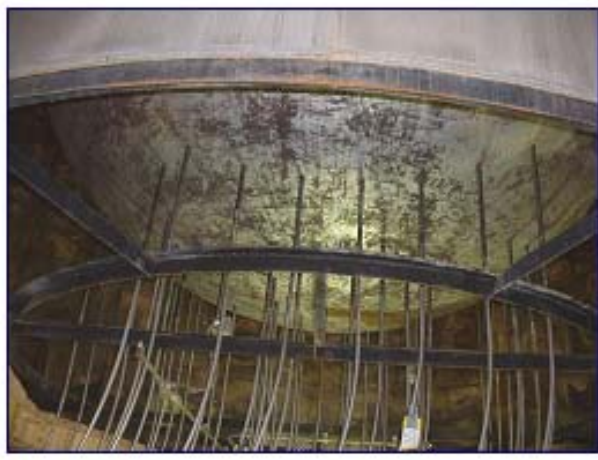
- Containment Health Ownership Transferred From Containment Health Program Owner to Superintendent of Plant Operations on July 3

**Containment Health Program Owner
and Superintendent of Plant Operations**

Remaining Mode 4/3 Activities



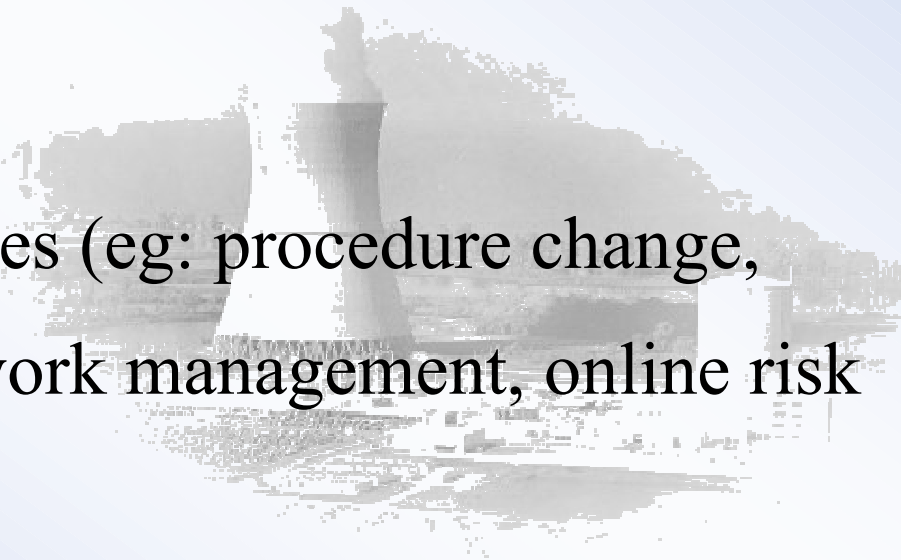
RPV Replacement Head



IMI Incore Nozzles

- Complete Mode 4/3 Activities
 - Conduct Restart Readiness Meetings
 - Complete Mode 4/3 restraints
 - Conduct normal operating pressure check of Reactor Coolant System
 - Inspection for leakage include
 - RPV Replacement Head
 - IMI Incore Nozzles

Desired Outcomes - First Mode 4/3

- Assess our People
 - Performance / Behavior / Attitude
 - Assess our Plant
 - Performance
 - Assess our Processes
 - Exercise various processes (eg: procedure change, emergent work, online work management, online risk assessment)
- 

High Pressure Injection Pump Modification Update



Bob Schrauder
Director - Support Services

High Pressure Injection Pump Modification Update

- Project Status
- Preliminary Findings
- Pump Guinard Modifications
- Project Completion Plans



High Pressure Injection (HPI) Pump

High Pressure Injection Pump Modification Update

•Project Status

- Modification design concept is complete
 - Stress and hydraulic design analyses complete
 - Failure Modes and Effects analysis under review
- In-plant testing satisfactorily completed
- Initial assumptions for testing set
- Mock-up testing in progress
- Pumps disassembled awaiting modifications



High Pressure Injection Pump Modification Update



Mock-Up Testing

20

High Pressure Injection Pump Modification Update

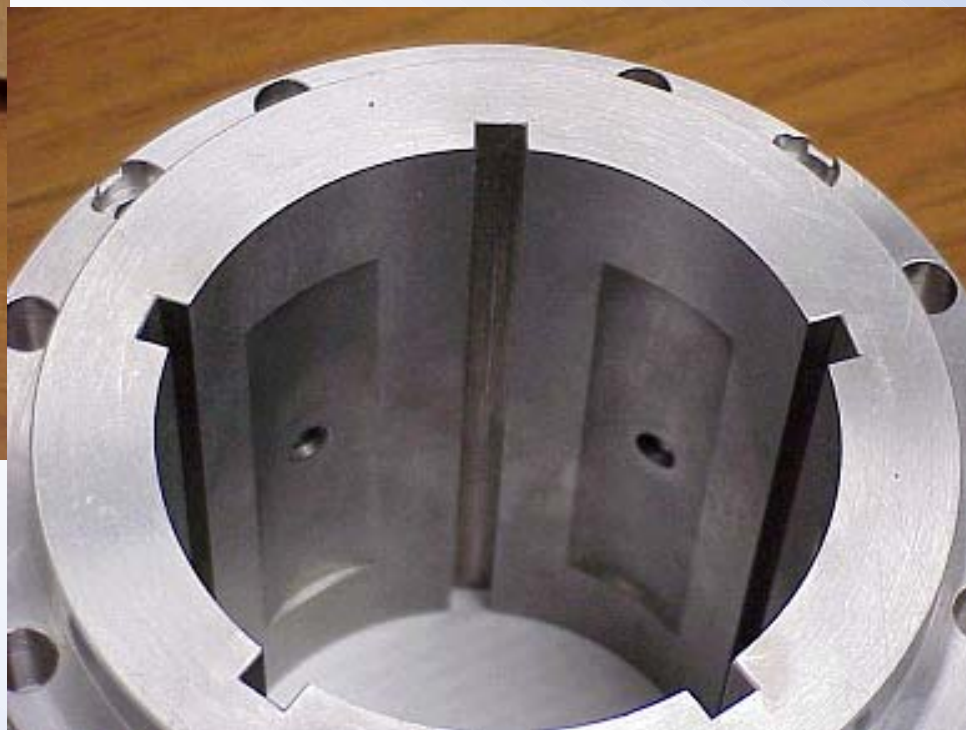


Mock-Up Test Fixtures

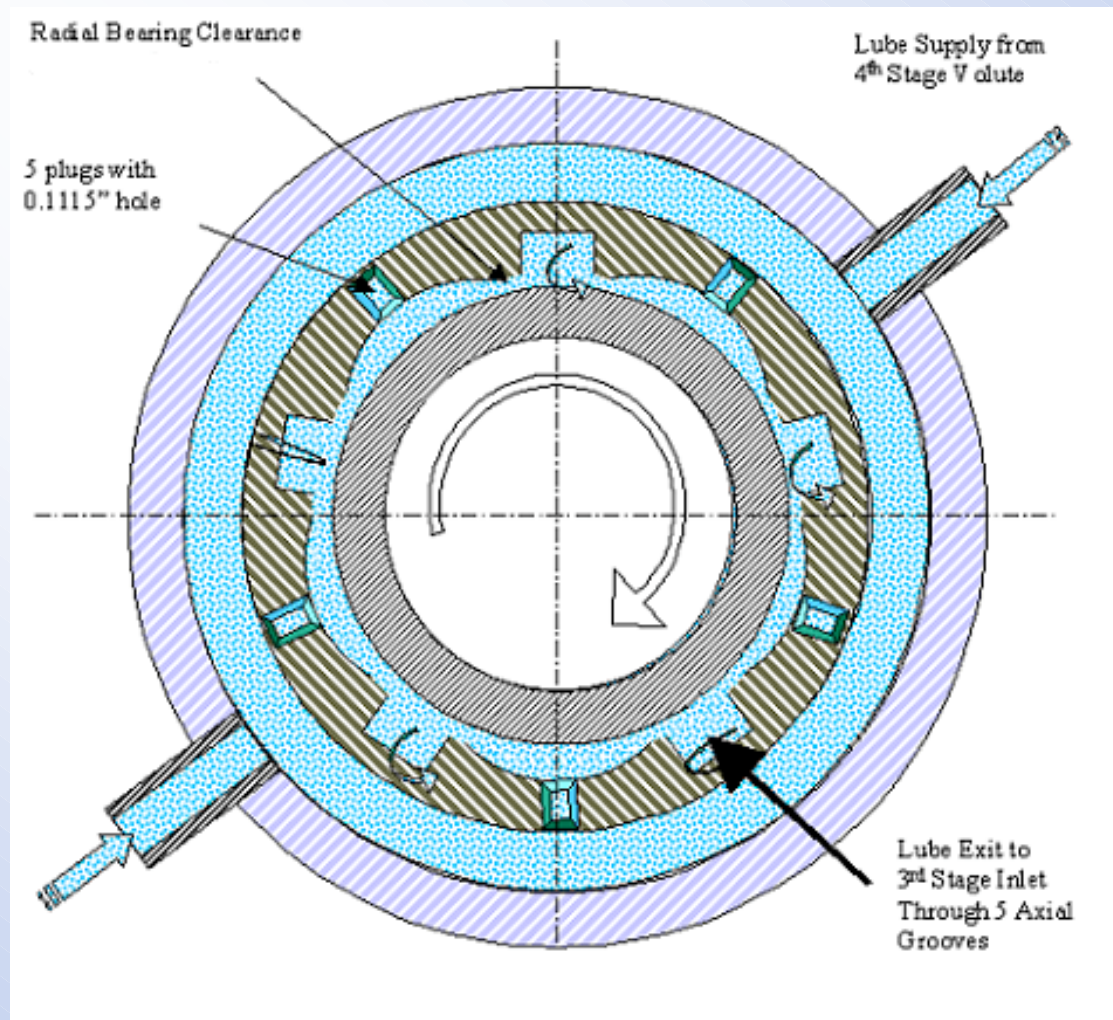
Preliminary Findings

- Strainer design with 90 mil holes operated satisfactory (no plugging), however ...
- Debris through 90 mil strainer filled hydrostatic bearing pads (soft debris was not “ground up”)
- Sieved debris (to simulate strainers with smaller holes) did not fill bearing pads, but hard debris 12 mil in size caused shaft sleeve wear
- Debris (primarily fiber) became lodged part way through clearances in wear fixtures, forming a debris pad or mat that caused local wear of softer material due to high contact force
- Initial findings indicate conditions more closely modeling expected containment environment is warranted

Hydrostatic Bearing Design



Hydrostatic Bearing Configuration



Pump Guinard Design Change

- French and Davis-Besse pumps have difference that impact debris operation
 - 4500 rpm operation increases centrifugal effect reducing debris concentration at new hydrostatic bearing supply take-off
 - Hydrostatic bearing AND shaft sleeve hardfaced
 - Labyrinth seals between stages instead of wear rings
- French pump modifications slightly different
 - Hydrostatic bearing supply take-off on discharge side of impeller instead of suction
 - Used discharge side seal as strainer
 - Installed hydrostatic bearing instead of central volute bushing (for rotordynamics)
 - Modified hydrostatic bearing pads for no supply flow conditions

Project Completion Plans

- Pump modification continues to be main success path
- Revise initial assumptions to more closely model actual containment environment
- Continue testing
- Refine modifications as necessary
- Determine final resolution



Operations Performance



Mike Roder
Manager - Plant Operations

Operations Performance

- Performance Improvement
 - Continuous Improvement Business Practice
 - Performance Indicators
 - 2003 Operations Excellence Plan
 - Operations Readiness for Mode 4/3



Operations Performance



- Continuous Improvement Business Practice (DBBP-OPS-0004)

- Purpose
- Inputs
- Outputs
- Assessment Process

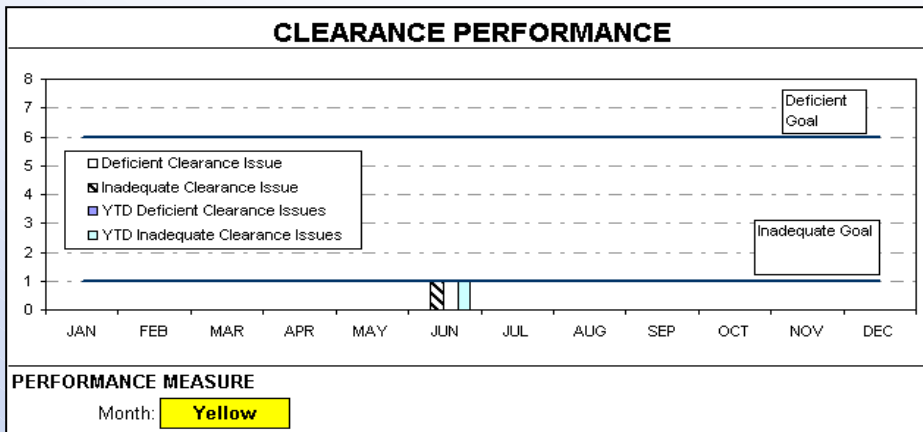
Operations Performance

Performance Indicators -June 2003

OPERATIONS SECTION											
PERFORMANCE INDICATOR											
ANNUNCIATOR PANEL											
SAFETY											
	SAFETY - 1 Radiation Exposure (G)	SAFETY - 2 Reactivity Management (G)	SAFETY - 3 Clearance Performance (Y)	SAFETY - 4 Configuration Control (Y)	SAFETY - 5 Industrial Safety (R)						
	Last Month (W)	Last Month (G)	Last Month (G)	Last Month (Y)	Last Month (G)						
PEOPLE											
	PEOPLE - 1 Section Clock (Y)	PEOPLE - 2 Misoperation of Equipment (Y)	PEOPLE - 3 Unplanned LCO Entry (G)	PEOPLE - 4 Personnel, Program, and Process Errors (W)	PEOPLE - 5 Performance Monitoring (G)	PEOPLE - 6 CR Self-Identification Rate (G)					
	Last Month (Y)	Last Month (W)	Last Month (G)	Last Month (Y)	Last Month (W)	Last Month (G)					
RELIABILITY OPERATIONS											
	REL. OPS - 1 Control Room Deficiencies (W)	REL. OPS - 2 Operator Work Arounds (Level 1) (W)	REL. OPS - 3 Procedure Backlog (G)								
	Last Month (W)	Last Month (Y)	Last Month (G)								
COST CONTROL											
	COST - 1 Budget (R)										
	Last Month (R)										
		Green (G)	Strength								
		White (W)	Satisfactory								
		Yellow (Y)	Improvement Needed								
		Red(R)	Weakness								

- Ranking Criteria
 - Green - Strength
 - White - Satisfactory
 - Yellow - Improvement needed
 - Red - Weakness

Operations Performance Clearance Control



- Purpose

- Assess Operations' ability to ensure personnel and equipment safety are not compromised during the clearance process

- Key process

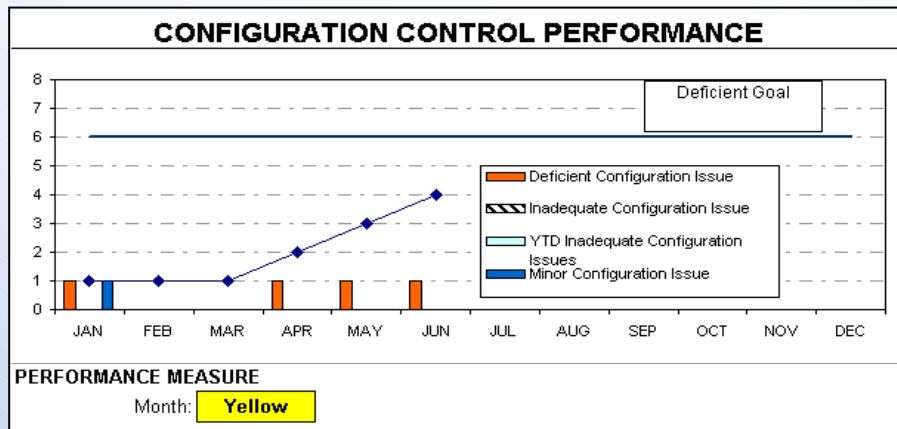
- Low thresholds

- Action taken

- Overall improvement

Operations Performance

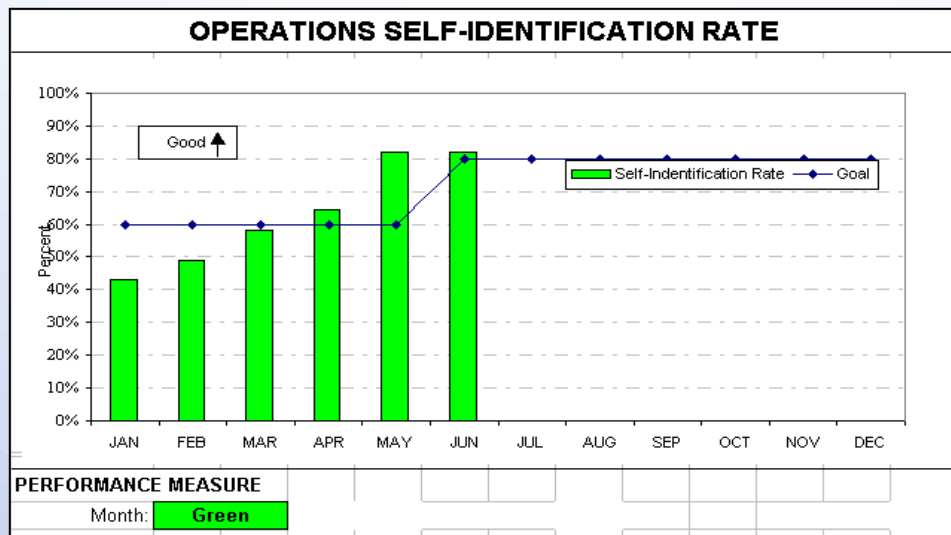
Configuration Control Performance



- Purpose
 - Tracks any equipment or component configuration events caused by Operations personnel
- Key process
- Early detection of negative trends
- Plans in place to improve

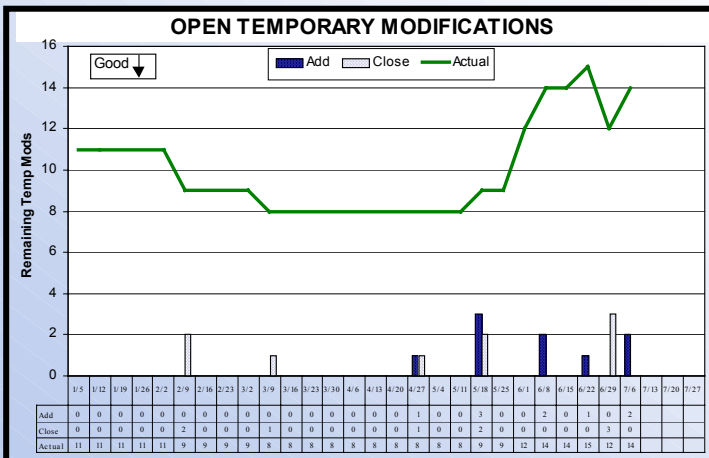
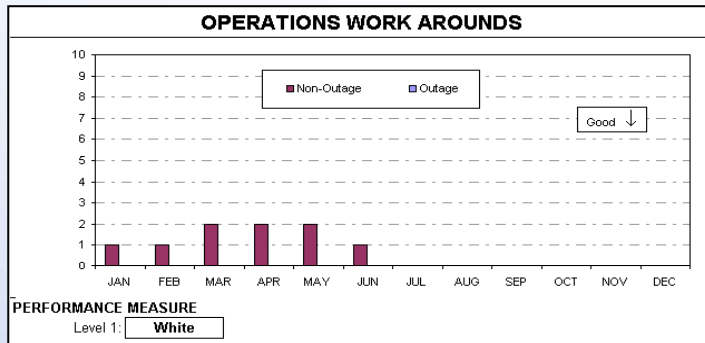
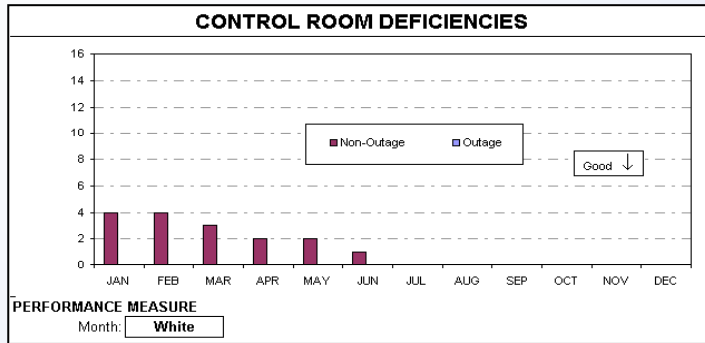
Operations Performance

Operation Self Identification Rate



- Purpose
 - Measures self-identification rates to Operations generated Condition Reports
- Measure of self-critical
- Previous year had decreasing trend
- Improved performance

Operations Performance



- Control Room Deficiencies, Operations Work Arouns, and Temporary Modifications
 - All scheduled for completion

Operations Readiness for Mode 4/3

- Training
 - ‘Just in Time’ Simulator Training
 - Modifications
 - Evaluations
- Plant Activities
 - System alignment
 - Turnover of Containment
 - 50# / 250# Test
 - Secondary plant startup
- Restart Readiness Review Preparation



Engineering Performance



Jim Powers
Director - Engineering

Engineering Performance

- Desired Outcome

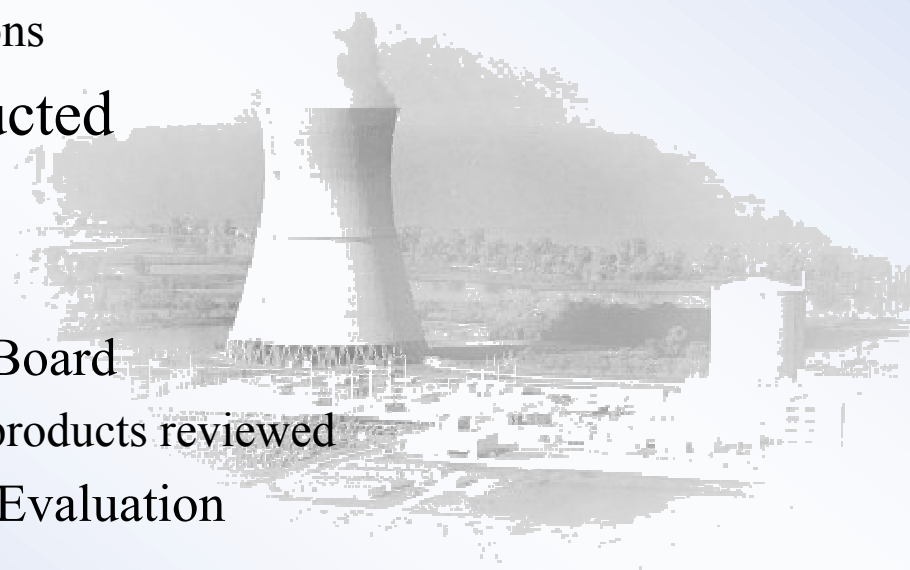
- Focus
 - People
 - Quality of Products
 - Processes



Engineering Performance

•Actions Taken

- Design Reviews Conducted
 - System Health Assurance Plan
 - Latent Issue Reviews
 - Safety Function Validation Project
 - Topical Area Reviews
 - Review of ~ 1500 Calculations
- Program Reviews Conducted
 - > 60 Key Programs
- Oversight
 - Engineering Assessment Board
 - Over 700 Engineering products reviewed
 - INPO Engineering Team Evaluation



Engineering Performance

- Engineering Quality and Rigor

- Improvements

- Issued Engineering Principles/Expectations Handbook
 - 50.59 Program and Operability Determinations enhancements
 - Root Cause Training
 - Program Ownership clarified
 - Created Engineering Assessment Board
 - Contractor oversight strengthened
 - Modifications to recapture/gain safety margins



Engineering Performance

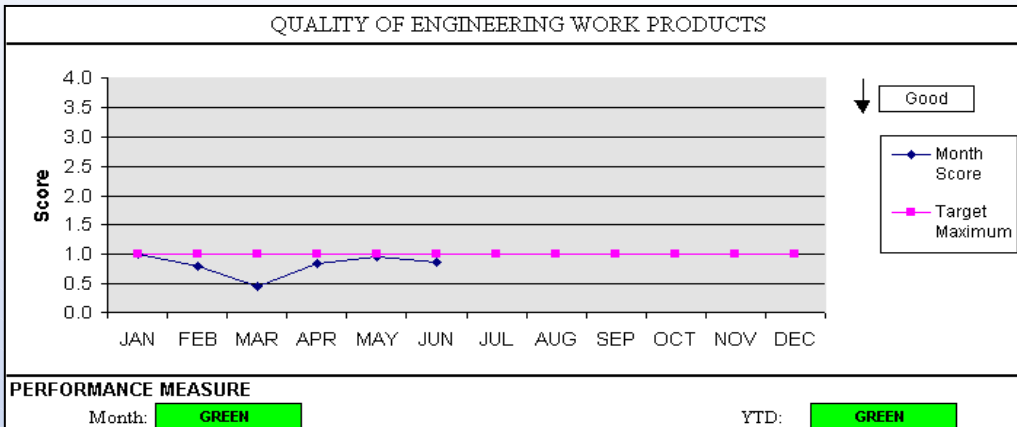
Performance Indicators - June 2003

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Engineering Performance Quality of Engineering Work Products

•Purpose

- Tabulation of overall Engineering product quality based upon a number of standard attributes divided by the total number of products evaluated by the Engineering Assessment Board

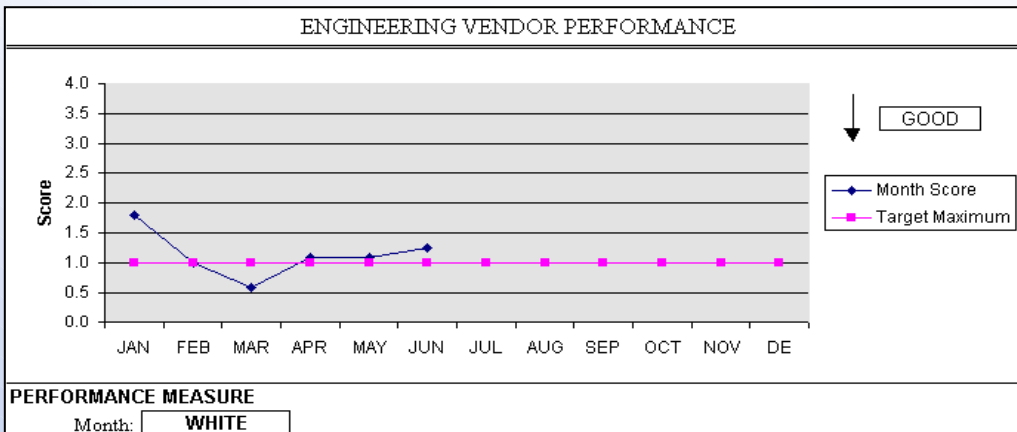


Engineering Performance

Engineering Vendor Performance

•Purpose

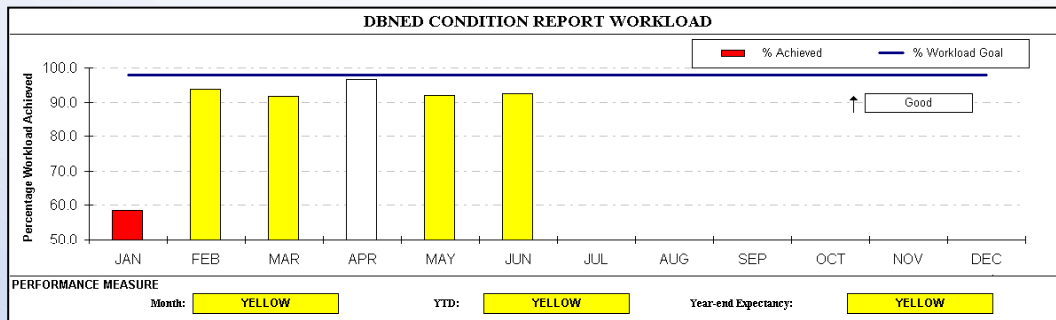
- Indicator represents the Engineering Assessment Board's assessment of calculations and plant changes prepared by vendors



Engineering Performance DBNED Condition Report Workload

- Purpose

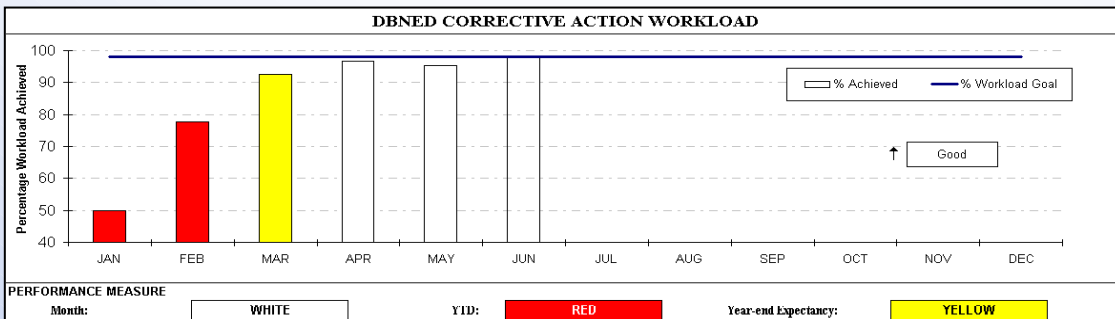
- Measures the overall effectiveness for the department in coordinating Condition Report investigations and providing timely resolution of issues to support continued and reliable services to the Plant



Engineering Performance DBNED Corrective Action Workload

•Purpose

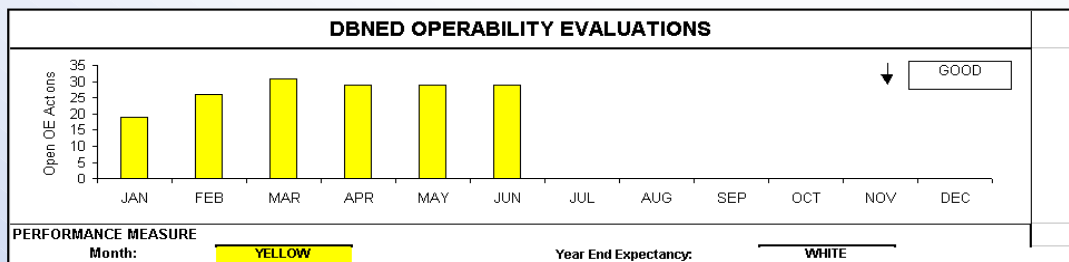
- Measures the effectiveness of the department in providing timely implementation and closure of Corrective Actions commensurate with the established schedule dates and priorities/risk significance of the actions based on supporting continued and reliable services to the Plant



Engineering Performance DBNED Operability Evaluations

- Purpose

- Measures the overall number of Operability Evaluations performed by engineering and provides a summary status of completed site actions, along with open activities

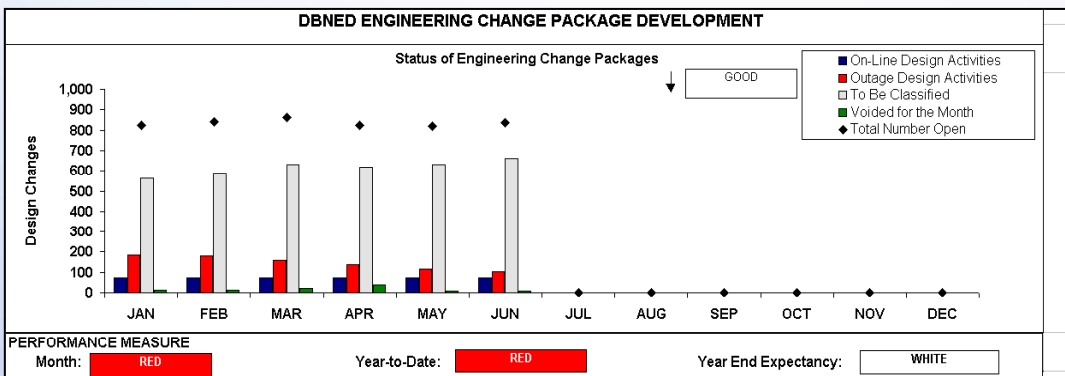


Engineering Performance

DBNED Design Change Development

•Purpose

- Identifies the overall number and status of Design Changes in progress and/or pending within Engineering

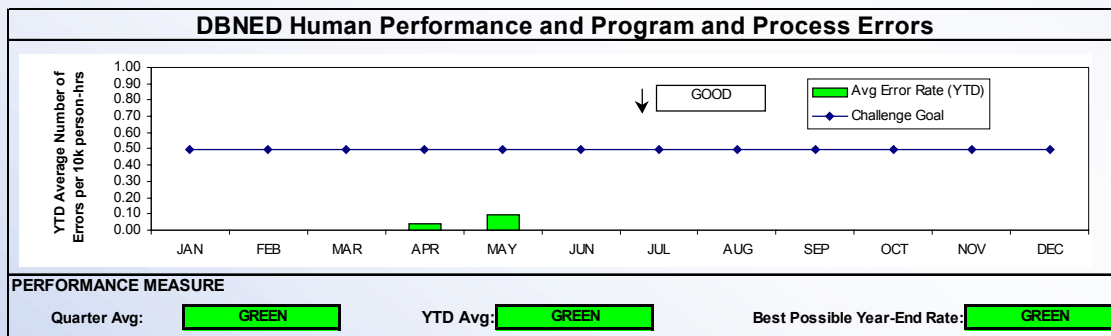


Engineering Performance

DBNED Human Performance and Program and Process Errors

•Purpose

- Measures human performance and programs and process errors that have a reasonable potential to affect plant safety, personnel safety, regulatory position, financial liability, environmental impact, or power production



Engineering Performance

- Actions to Sustain Improved Performance
 - Organizational development (People)
 - FENOC Organization
 - Roles and responsibilities
 - New hires
 - Opportunities for improvement captured in Corrective Action Program (Quality)
 - Engineering Work Management System (Process)
- Engineering continues to improve and is ready to support Modes 4 and 3

Maintenance Performance



Mike Stevens
Director - Maintenance

Maintenance Performance

- Improvement areas
 - Work Preparations
 - Supervisory Field Involvement
 - Equipment return to service
- Comprehensive Plan
 - Focus on Fundamentals
 - Intermediate Improvements
 - Ownership at all levels



Maintenance Performance

- Vision 1 - Operations is the #1 Customer,
- Vision 2 - Maintenance Embraces Continuous Improvement,
- Vision 3 - Maintenance has Ownership of Equipment Deficiencies,
- Vision 4 - Maintenance Values Performance Feedback, and
- Vision 5 - Maintenance Leadership is consistent

Maintenance Performance Indicators

Davis-Besse Maintenance Section June 2003 - Performance Summary

Safety

Last Mon

Yr. End

Data?

Industrial Safety (2)

Include?

Last Mon

Yr. End

Data?

Collective Radiation Exposure (3)

Include?

Last Mon

Yr. End

Data?

ALARA Planning Efficiency (4)

Include?

Last Mon

Yr. End

Data?

Condition Report Initiation (5)

Include?

Last Mon

Yr. End

Data?

Field Observation Performance (6)

Include?

People

Last Mon

Yr. End

Data?

Maintenance Section Clock (7)

Include?

Last Mon

Yr. End

Data?

Human Performance Error (8)

Include?

Last Mon

Yr. End

Data?

Self-Identification Rate (10)

Include?

Last Mon

Yr. End

Data?

Open Condition Reports (11)

Include?

Last Mon

Yr. End

Data?

Open CREST Corrective Actions (12)

Include?

Reliability

Last Mon

Yr. End

Data?

2nd-Ln Mgmt. Training Obs. Performance (14)

Include?

Last Mon

Yr. End

Data?

Maintenance Caused NRC Violations (15)

Include?

Last Mon

Yr. End

Data?

1st-Ln Supervisor Effectiveness (13)

Include?

Last Mon

Yr. End

Data?

Procedure Alteration Performance (20)

Include?

Last Mon

Yr. End

Data?

Rework (21)

Include?

Cost

Last Mon

Yr. End

Data?

Maintenance Shop Availability (17)

Include?

Last Mon

Yr. End

Data?

Maintenance Shop Completion Efficiency (18)

Include?

Last Mon

Yr. End

Data?

Plant Leaks (19)

Include?

Last Mon

Yr. End

Data?

Foreign Material Events

Include?

Last Mon

Yr. End

Data?

COR/ELE Work Order Backlog (22)

Include?

Last Mon

Yr. End

Data?

Communication Error (9)

Include?

Last Mon

Yr. End

Data?

Organizational Error (24)

Include?

Excellent

Satisfactory

Unassessed

Improvement Needed

Performance Weakness

Data Not Available to be Analyzed Yet

Previous

Yr. End

Current Measure

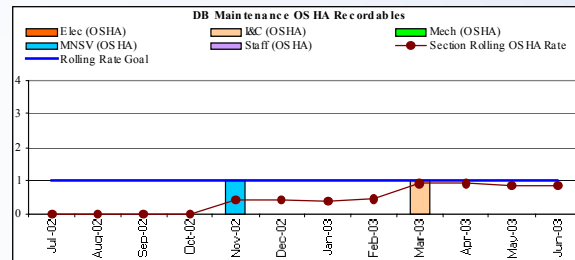
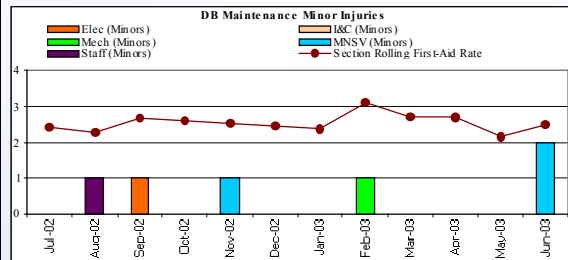
(page #)

- Four areas - Safety, People, Reliability, and Cost, align to FENOC Business plan
- Lowered threshold for performance improvement

Maintenance Performance

Industrial Safety Performance

DB Maintenance Industrial Safety Performance



Month End: RED	RANKING CRITERIA	GREEN	No OSHA Recordables or First-Aid Incidents for 2 months.
Last Month End: GREEN		WHITE	No OSHA Recordables or First-Aid incidents.
Year End Forecast: WHITE		YELLOW	1 OSHA Recordable or First-Aid incident.
		RED	2 or more OSHA Recordables or First-Aid incidents.

	Month	YTD
Lost Time Accidents	0	0
OSHA Recordables	0	1
First-Aids	2	3
Work-Hours	39,525.0	244,192.0

Part of the body injured	Month	YTD	Month	Injury Type	Injury Date	Shop	Injury	Activity
Head	0	0	Nov-02	FA	11/23/2002	MNSV	Sprained Ankle	Step down from motor platform
Torso	1	1	Nov-02	OSHA	11/22/2002	MNSV	Bumped Head	Moving from scaffold ladder to deck
Upper Extremities	1	3	Feb-03	FA	2/12/2003	Mech	Strained Right Shoulder	Pulling on torque wrench
Lower Extremities	0	0	Mar-03	OSHA	3/6/2003	I&C	Finger Laceration	Drilling hold in sheet metal
			Jun-03	FA	6/13/2003	MNSV	Minor Puncture	Removing Insulation
			Jun-03	FA	6/15/2003	MNSV	Heat Stress	Removing Scaffold

DEFINITION
This indicator depicts the number of First-Aid and OSHA Recordable incidents for DB Maintenance Section In-House Employees.

OBJECTIVE/GOAL
The objective is to prevent industrial accidents by careful work planning, supervisory involvement, and employee attention to detail and thoughtful work practices.

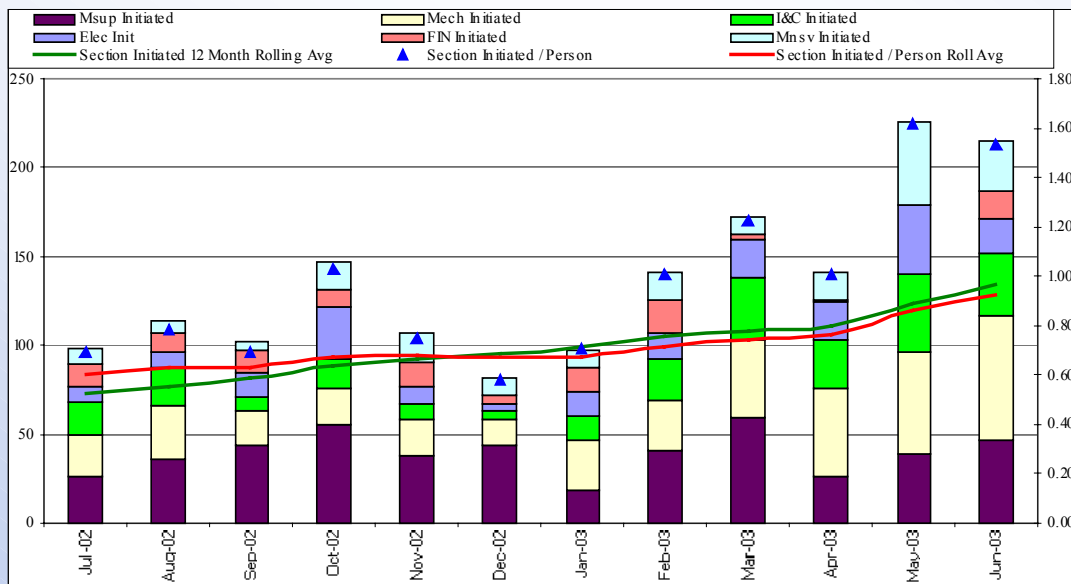
ANALYSIS
There were 2 first-aid injuries in the Maintenance section for the month of June.
The First-Aid recordable rate was 10.12 per 200,000 work-hours for the month of June with a 12-month rolling average of 2.51.
The OSHA recordable rate was 0.00 per 200,000 work-hours with a rolling average of 0.82.
THE ERROR RATES ARE CURRENTLY BEING ESTIMATED BY AVERAGING THE WORK-HOURS OVER THE LAST 5 MONTHS.

CURRENT INITIATIVES

- No Lost Time Injury > 5 years
- Over 10000 activities performed
- Rolling 12 month cycle
- Objective is prevent injuries through careful planning and work implementation

Maintenance Performance

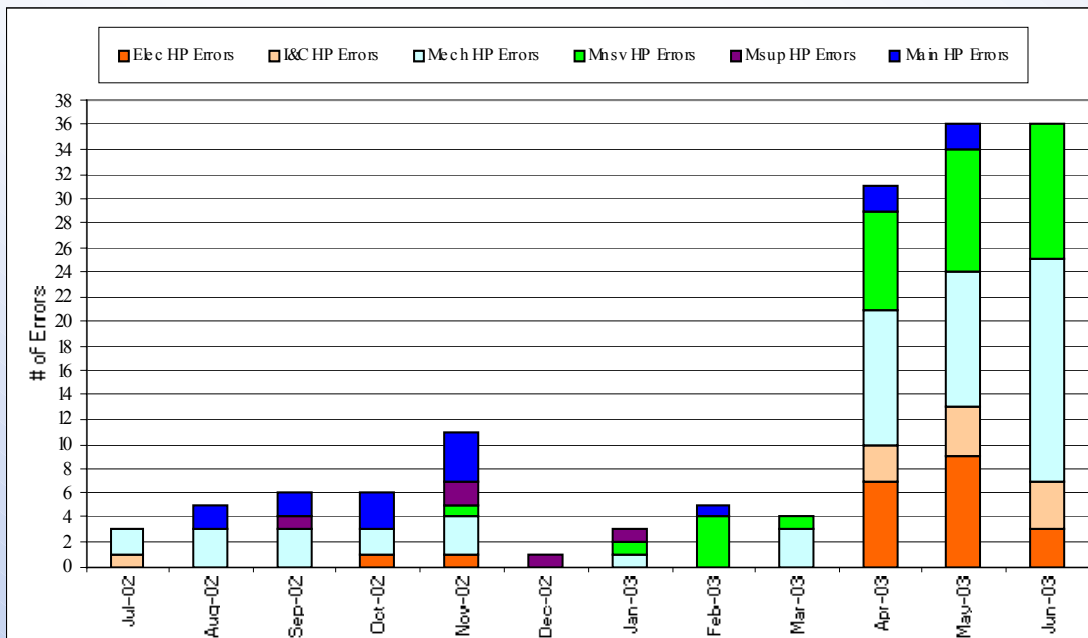
Number of Condition Reports (CR)



- The number of CR's initiated is an indication of CR threshold sensitivity
- The objective is to carry out safety-conscious work practices by identifying issues in the plant
- More are being written, more people are writing CR's
- Result of My focus and My groups focus on safety

Maintenance Performance

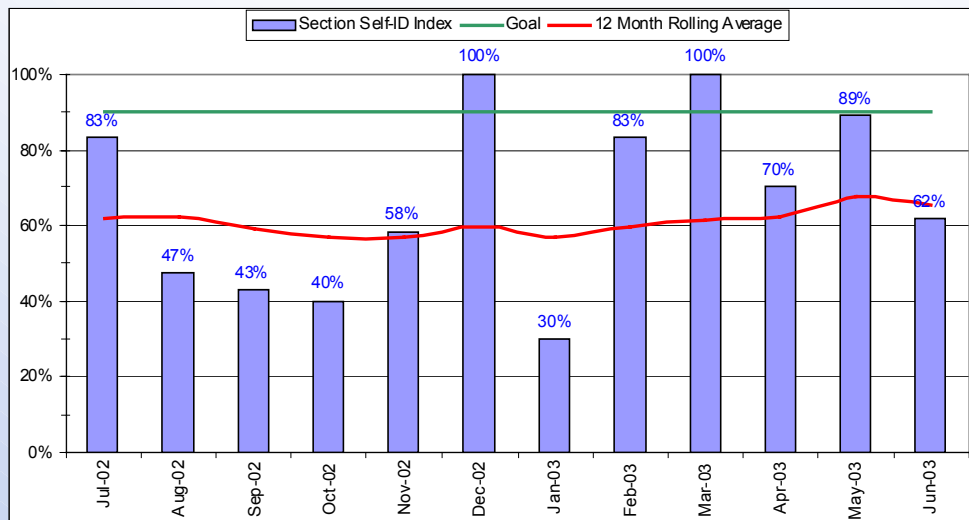
Human Performance Errors



- A human performance error is defined as an inappropriate action specific to an individual or individuals due to a failure in the use of our Event Free Tools
- Lowered threshold for identification
- Used to provide feedback and training improvement

Maintenance Performance

Percent of Self-Identified Condition Reports

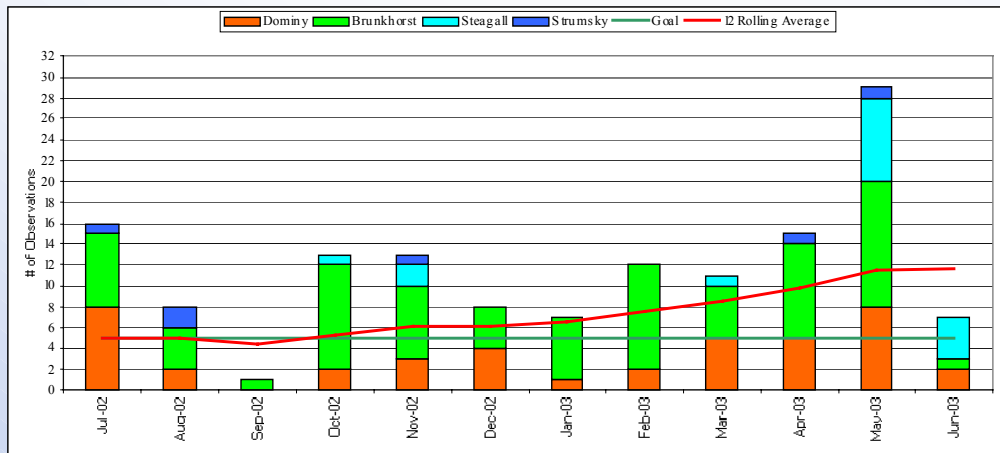


- CR's initiated by Maintenance and Maintenance is determined to be the cause organization out of all CR's assigned to Maintenance
- This provides an indication of how well Maintenance finds and fixes its own problems
- CR's that are initiated outside the Maintenance organization and CR's initiated as a result of a self-revealed issue are not considered self-identified

Maintenance Performance

Number of Training Observations

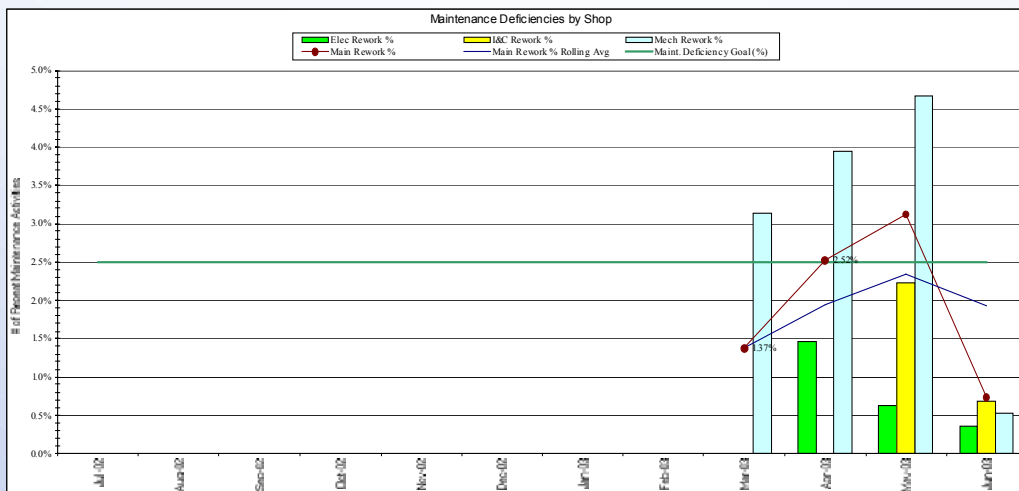
- This indicator depicts the Maintenance Superintendents direct monitoring of training
- The monthly amount is the number of observations performed
- The rolling rate averages the last 12 months of observations
- Observation of training ensures that management is engaged and directs the training program



Maintenance Performance

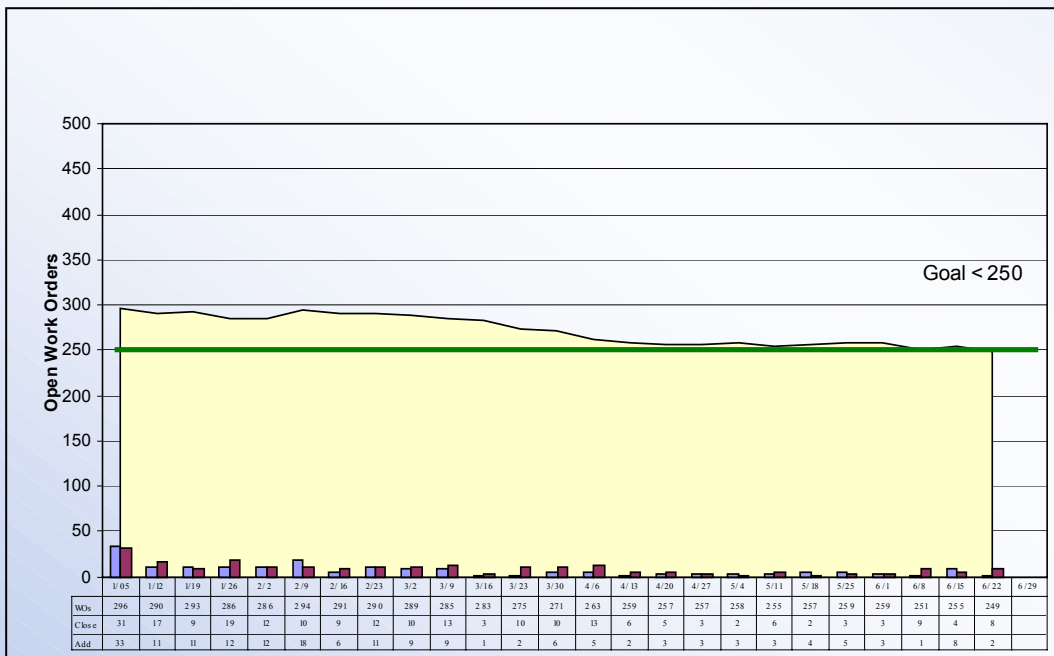
Rework

- This indicator depicts the number of maintenance reworks
- A rework is defined as the re-performance of any physical maintenance task prior to return to service
- This includes, but is not limited to, failure during testing, or an identical problem which was performed within 12 months on the same equipment or component



Maintenance Performance

Corrective Work Orders



- This indicator depicts the Maintenance section's number of Non-Outage corrective maintenance work orders
- The goal is to achieve less than 250 non-outage corrective work orders
- Corrective maintenance determined by Work Control in accordance with Industry definitions

Maintenance Performance

- Summary

- Improved alignment in maintenance
- Improved identification of issues
- Improved morale
- Improved teamwork

- *Maintenance is ready to support Operations to Mode 4/3 testing*



Safety Margin Improvements



Lew Myers
Chief Operating Officer - FENOC

Safety Margin Improvements

FENOC Definitions

Safety Culture

That assembly of characteristics and attitudes in organizations and individuals which establishes an overriding priority towards nuclear safety activities and that these issues receive the attention warranted by their significance.

Safety Conscious Work Environment

That part of a Safety Culture addressing employee willingness to raise issues and management's response to these issues.

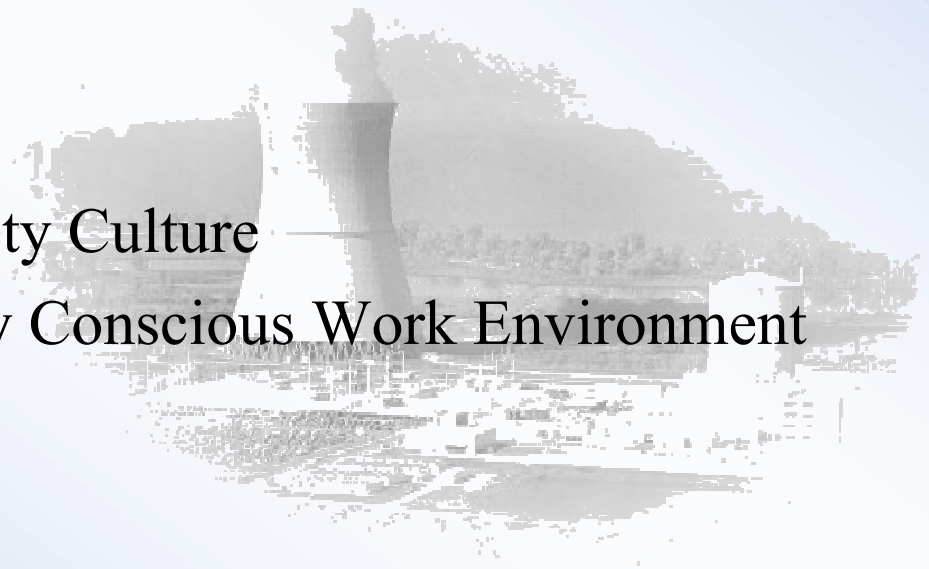
Safety Margin Improvements

- 
- Focus our attention
 - People
 - Plant
 - Design Improvements

Safety Margin Improvements

- People

- Policy Level Commitment
 - Executive Leadership Team Strategy Meeting
 - New FENOC Vision
 - Strategic Objectives
 - Fleet Goals
 - New Policies on Safety Culture
 - New Policy on Safety Conscious Work Environment



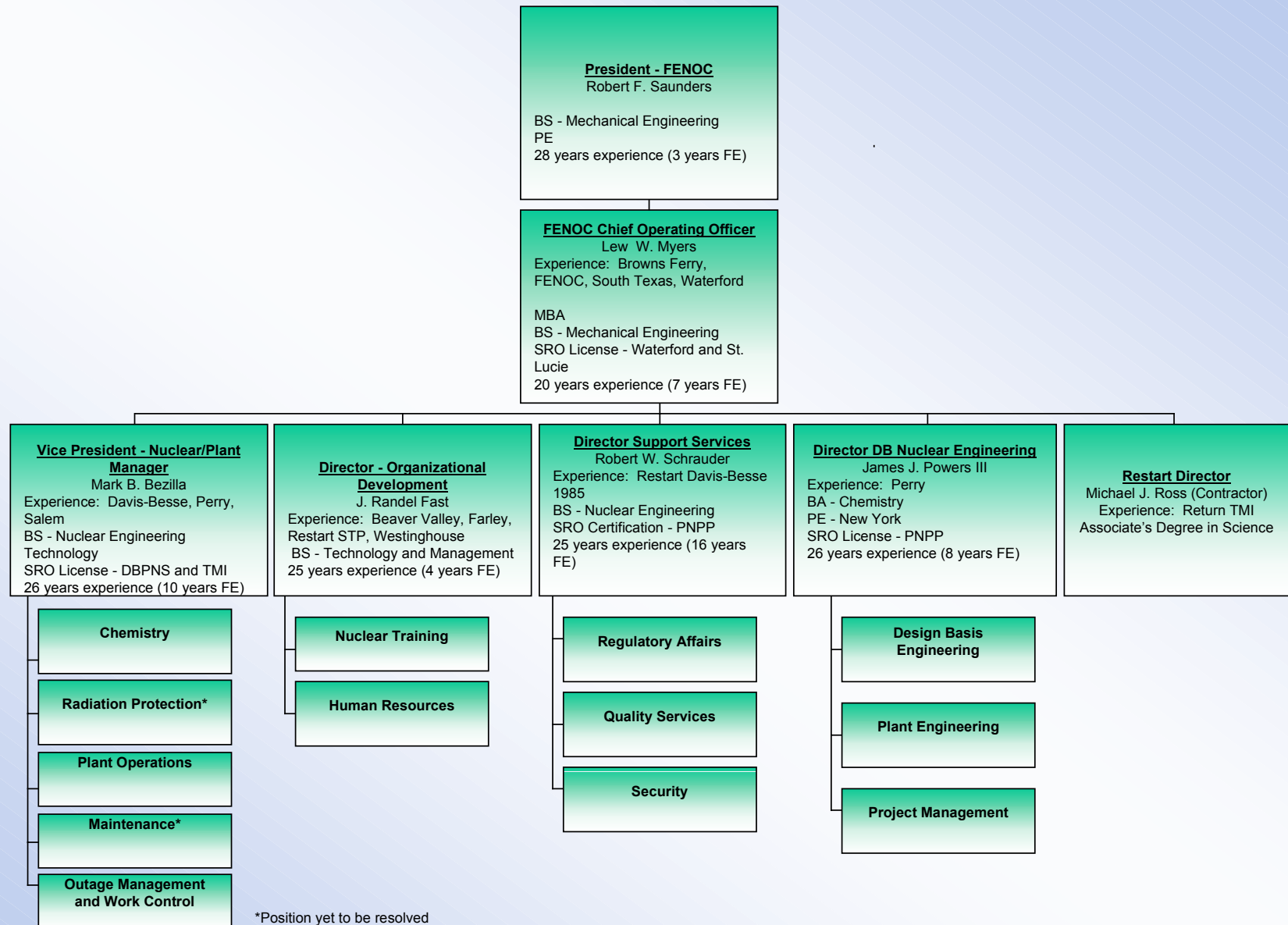
Safety Margin Improvements

- People

- Davis-Besse Management Commitment
 - Strengthened Organization
 - Management Team Meeting
 - Picture of Success to 2004
 - Revised Management Behaviors
 - Prepared for Employee Meeting (end of July)

DAVIS-BESSE SITE ORGANIZATION

June 2003



Safety Margin Improvements

•People

- 8 million man-hours worked with no Loss-Time Accident
- Continue Communication and Alignment
 - 4C Meetings (Compliments, Communications, Concerns, and Changes)
 - Town Hall, All Site, and Department Meetings
 - Stand Downs
- Implemented Operator Leadership Plan
- Reinstate Senior Reactor Operator Class
- Strengthened Individual Ownership and Commitment
 - Engineering Rigor
 - Operability Decision-Making
 - Operator License Responsibilities Training
 - Shift Manager Command Responsibility
- Raised Standards/Lowered Thresholds

Safety Margin Improvements

•Plant

- Replacement of Reactor Pressure Vessel Head
- Installed Permanent Reactor Cavity Seal
- Rework of Containment Sump
- Containment Dome Painting
- Installation of FLÜS Online Leak Monitoring System
- Replacement of Containment Air Coolers
- Rework of Decay Heat Tank
- Fuel Inspection and Vessel Cleaning
- Higher Containment Integrated Leak Rate Test
- Electrical Transient Analysis Program
- Diesel Air Start/Diesel Room Temperature
- High Pressure Injection Pump modification
- Containment Spray Pump Cyclone Separator modification

Safety Margin Improvements

•Design Improvements

- Building Blocks
 - Containment Health Assurance Plan
- Design Reviews
 - System Health Assurance Plan
 - Latent Issue Reviews
 - Safety Function Validation Project
 - Topical Area Reviews
 - Review of ~ 1500 Calculations
- Procedures and Programs
 - Air Operated Valve Program
 - Boric Acid Control Program
 - Reactor Coolant Leak Rate Program
 - Operating experience
- Self-Assessments and Quality Assurance Oversight
- Operational Readiness Review

Safety Margin Improvements

- Summary

- Improvements to areas that increase safety margin, including people, plant, design improvements help ensure the plant is ready for safe and reliable operations



Restart Milestones/Actions






Clark Price Owner - Restart Action Plan

Restart Milestones/Actions

- Current Focus for Normal Operating Pressure Test
 - Critical Path for Mode 4 and 3
 - High Pressure Injection Pump installation
 - High Pressure Injection Pump Minimum Recirculation modification installation
 - Electrical Transient Analysis Program (ETAP) modifications
 - Thermal Overload Heater installation
 - Other Work for Mode 4 and 3
 - Air Operated Valve modifications
 - Safety Features Actuation System testing
 - Restart Readiness Review Meetings

Restart Milestones/Actions

Item No.	0350 Item Description	Discovery	Implementation
1	Adequacy of Root Cause		
a	Penetration cracking and Reactor Pressure Vessel corrosion	Technical Root Cause 02-0891	
b	Organizational, Programmatic and Human Performance Issues	100	
2	Adequacy of Safety Significant Structures, Systems and Components		
a	Reactor Pressure Vessel Head Replacement		97
b	Containment Vessel Restoration following RPV Head Replacement		100
c	Structures, Systems and Components Inside Containment	100	98
c.1	Containment Emergency Sump	100	100
d	EOC of Boric Acid in Systems Outside of Containment	100	98
e	High Pressure Injection Pumps		

 Field Complete	 In Progress	 Hold - Plant Conditions	 N/A - Not Applicable
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Restart Milestones/Actions

Item No.	0350 Item Description	Discovery	Implementation
3	Adequacy of Safety Significant Programs		
a	Corrective Action Program	100	100
b	Operating Experience Program	100	100
c.1	Quality Audits	100	100
c.2	Self-Assessments of Programs		100
d	Boric Acid Corrosion Management Program	100	100
e	Reactor Coolant System Unidentified Leakage Monitoring Program		100
f	In-Service Inspection Program	100	100
g	Modification Program	100	100
h	Radiation Protection Program	100	97
i	Completeness & Accuracy of Required Records & Submittals to NRC		48

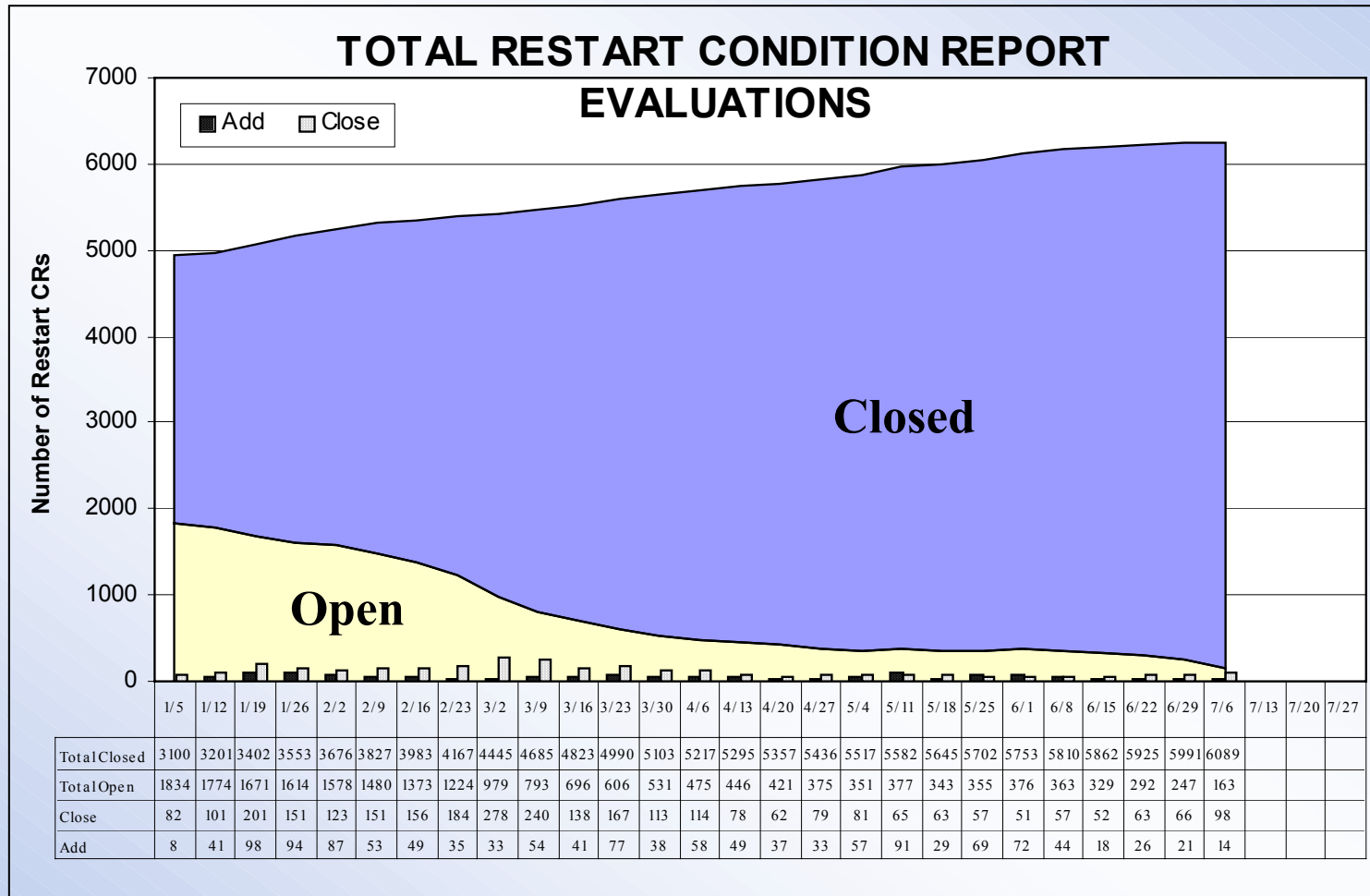
 Field Complete	 In Progress	 Hold - Plant Conditions	 N/A - Not Applicable
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Restart Milestones/Actions

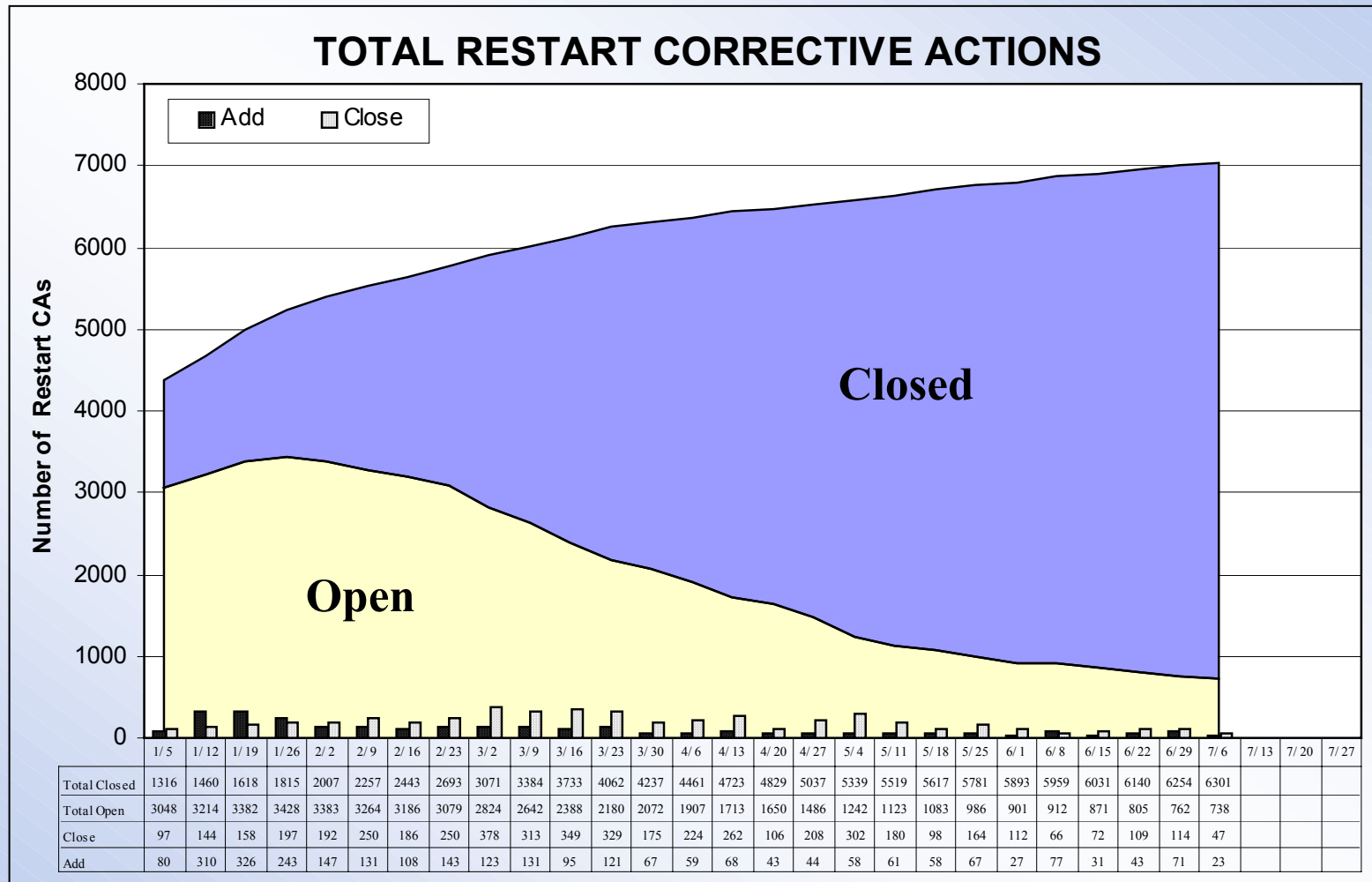
Item No.	0350 Item Description	Discovery	Implementation
4 a	Adequacy of M&HP Corrective Action Plan		99
b	Effectiveness of M&HP Corrective Actions		60
5	Readiness for Restart		
a	Review of Licensee's Restart Action Plan		
b	Systems Readiness for Restart	100	95
b.1	Design Calculation Resolution	100	100
c	Operations Readiness for Restart		Restart Readiness Reviews
d	Test Program Development and Implementation		74
6 a-f	Licensing Issue Resolution		100
g	LAR - ECCS Flow Balance Testing		50
7 a	Confirmatory Action Letter Resolution		CAL Resolution & Restart Report

	Field Complete		In Progress		Hold - Plant Conditions		N/A - Not Applicable
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Restart Action Performance



Restart Action Performance



Closing Comments



Lew Myers
Chief Operating Officer - FENOC